

REMARKS

In view of the above amendments and the following remarks, Applicant requests favorable reconsideration of this application.

Claims 1, 2, 4, 7, 9, 11, 12, and 16 are now pending in this application, with Claim 1 being independent. By this Amendment, Applicant has amended Claims 1, 4, and 11, and added new Claim 16.

Claim 11 stands objected to as depending from canceled Claim 10. By this Amendment, Claim 11 has been amended to depend from Claim 1.

Claims 1, 2, 4, 7, and 9 stand rejected under 35 U.S.C. § 102 as being anticipated by U.S. Patent No. 6,621,959 (Lin, et al.). Claims 1 and 11 stand rejected under 35 U.S.C. § 102 as being anticipated by U.S. Patent No. 6,810,170 (Takushima, et al.). Claim 12 stands rejected under 35 U.S.C. § 103 as being unpatentable over Takushima, et al. in view of Lin, et al. Applicant traverses these rejections.

As recited in independent Claim 1, Applicant's invention is directed to an optical waveguide apparatus having a sheet-shaped optical waveguide, a light emitting unit, light receiving units, a light diffusing structure, and a closed region. The light emitting unit emits a light beam to the waveguide. The light beam emitted by the light emitting unit propagates to the light diffusing structure where the light beam is diffused by the light diffusing structure to propagate in all directions from the light diffusing structure within the closed region. The light receiving units are located at positions that surround the light diffusing structure within the closed region to receive the diffused light.

Lin, et al. discloses a planar waveguide diffractive 1xN beam splitter/coupler that utilizes an integrated circuit fabrication process to fabricate an integrated optic. A Fourier

transform diffractive optical element is formed on one end of the planar waveguide. An incident beam from one end of the planar waveguide may be diffracted into a plurality of output beams.

Takushima, et al. is directed to an optical signal processor in which light output from a distal end of an optical fiber collimator is input to a first diffracting grating formed on a first surface of a transparent member. The light is diffracted by the first diffraction grating at angles corresponding to different wavelengths. The light components of the respective wavelengths branched by the first diffraction grating are diffracted by a second diffraction grating formed on a second surface of the transparent member.

Both Lin, et al. and Takushima, et al. describe line-type diffraction elements from which light beams are diffused over a restricted range of less than 180°. Further, the light receiving units are located only within the restricted range of less than 180°. Neither of the references suggests a diffusion structure that propagates light in all directions or light receiving units located at positions that surround the diffusion structure.

Consequently, Applicant submits that Lin, et al. and Takushima, et al. fail to disclose or suggest, at least, the features of a light diffusing structure for diffusing a light beam in a waveguide, light receiving units for receiving light propagating in the waveguide, and a closed region having the light receiving units, wherein the light beam is diffused in the closed region by the light diffusing structure to propagate in all directions from the light diffusing structure within the closed region, and the light receiving units are located at positions that surround the light diffusing structure to receive the diffused light, as recited in independent Claim 1.

The remaining claims in this application are dependent claims which depend from independent Claim 1. Applicant submits that the dependent claims are allowable for the reasons set forth above with respect to that independent claim. In addition, those claims recite additional


features that further distinguish them from the cited patents. Applicant requests favorable and independent consideration of the dependent claims.

For the foregoing reasons, Applicant requests withdrawal of the rejections under 35 U.S.C. §§ 102 and 103, and allowance of this application.

This Amendment After Final Rejection is an earnest attempt to advance prosecution and is believed to clearly place this application in condition for allowance. At the very least, the changes presented herein reduce the number of issues on appeal. Applicant requests entry of this Amendment under 37 C.F.R. § 1.116

Applicant's undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,



Attorney for Applicant
Justin J. Oliver
Registration No. 44,986

FITZPATRICK, CELLA, HARPER & SCINTO
30 Rockefeller Plaza
New York, New York 10112-3801
Facsimile: (212) 218-2200

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